



DENVER
THE MILE HIGH CITY

Wastewater Enterprise Fund Financial Plan



City Council Briefing

Department of Public Works
Budget and Management Office

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- Overview of Wastewater Enterprise Fund
- Rate Increase Drivers
- Storm and Sanitary Sewer Programs
- Storm and Sanitary Combined
- Customer Billing Improvement Options
- Affordability Options
- Recommendations



- Denver's Wastewater Management Division plans, constructs, operates and maintains Denver's sanitary sewer and storm drainage system.

Storm - \$41M

- Collects and transports natural events such as rain and snowfall using above ground and underground conveyance
- 750 miles of storm drainage facilities
- Annual billing

Sanitary -\$86M

- Collects and transports waste from homes and businesses
- Treated through Metro Reclamation District
- 1,475 miles of sanitary sewers
- Monthly billing through Denver Water

Cash Reserve Ratio

25% of annual operation & maintenance (O&M) expense.

Debt Service Coverage

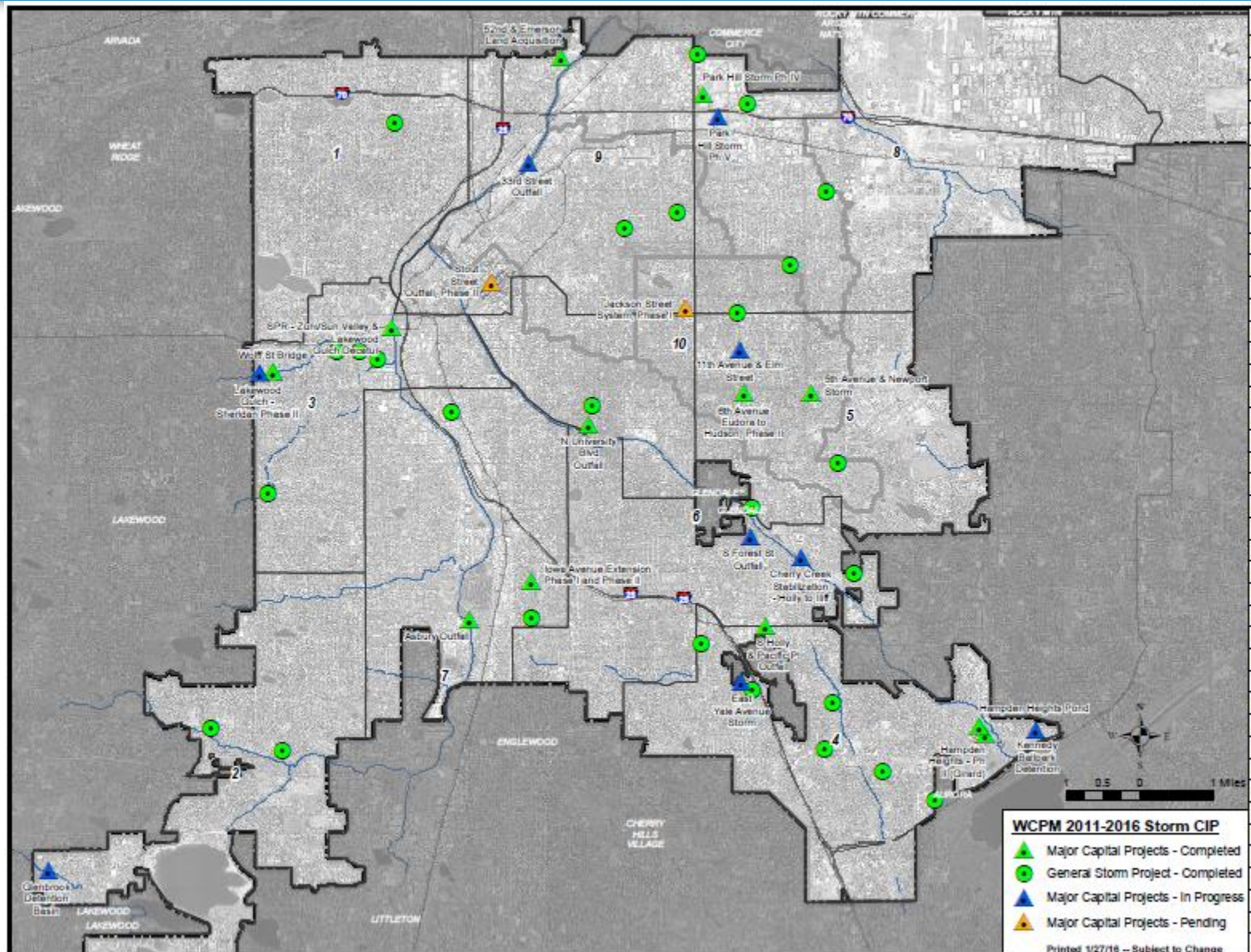
Net revenues (revenues less O&M expenses) must be at least 125% of Annual Debt Service

Measured on total Wastewater Enterprise Fund basis

Financially constrained Six-Year Capital Plan



Storm and Sanitary Capital Program Completed Projects (2011-2016)



Why is a Rate Increase Needed

Storm

- Proactively protect against serious flooding and drainage problems
- Update aging infrastructure
- Improve city's water quality
- Provide for robust annual capital program
- Ensure financial health and cash reserves

Sanitary

- Keep pace with annually increasing costs of processing dirty water in sanitation facility
- Update aging infrastructure
- Expand flexibility and flow to accommodate growth
- Ensure financial health and cash reserves

STORM

- Maintenance and personnel are the main operational cost drivers in storm drainage.
 - O&M expenditures is approximately \$18M annually
 - Sanitary revenue currently subsidizes storm program
- Current storm bond payments are approximately \$4.3M annually.
 - *“Standard & Poor's Ratings Services has affirmed its 'AAA' rating on Denver City & County, Colorado's wastewater enterprise revenue bonds. The outlook is stable.” (December 2014)*
 - *“Fitch affirms City and County of Denver, Colorado's Wastewater Revs at 'AAA', outlook stable.” (December 2015)*
- Capital improvement project expenditures are currently \$20M annually.



- **Six-Year Storm Drainage Capital Improvement Plan (\$383m)**
 - 2016 through 2021 includes \$177M (approximately \$30M per year) in storm drainage capital improvements and water quality.
 - Studies, planning or design is currently underway on over 60% of projects in plan.
 - **Neighborhood Needs** – Citywide annual maintenance programs for storm drainage facilities (\$53M of program)
 - Examples: *E. Iowa Avenue Extension, Holly & Pacific Place Outfall, Citywide General Storm Program*
 - **Focus Basins** – Major critical storm drainage system capital projects to reduce flood risk to life and property (\$78M of program for citywide projects)
 - Examples: *High Street Outfall Phase I, 33rd Street Outfall (currently underway), N. University Outfall*
 - *Platte to Park Hill is included in the focus basins and will account for \$206M*
 - **Focus Waterways** – Restoration and flood mitigation in partnership with UDFCD, USACE, FEMA, etc. (\$25M of program)
 - Examples: *Lakewood Gulch –Decatur, S. Platte River Projects (Zuni/Sun Valley)*
 - **Water Quality** (\$21M of program)

- Funding is needed for capital projects that improve water quality and the health of Denver's waterways.
- E. coli levels in the South Platte River often exceed safe standards for recreation.
- Water quality projects reduce pollution while also providing other environmental and recreational benefits (air quality, open space, connectivity, etc.)
- Current plan addresses five priority basins over 12 years
 - Increased treatment of 3,800 acres (3x the surface area of Chatfield Reservoir)
 - Removes priority pollutants by an average of 30% in the five basins

Storm Drainage Rate Increase Structure (Annual Billing)			
Year	Rate Change	Total Average Annual Charge	Annual Increase
2011	20%	\$85.25	\$13.20
2012	2%	\$86.90	\$1.64
2013	2%	\$88.55	\$1.65
2014	CPI (2.8%)	\$91.03	\$2.48
2015	CPI (2.7%)	\$93.50	\$2.47

- Storm Drainage bill is based on a formula using the lot size, the total impervious (or impermeable) surface area, and billing rates.
- In 2016, storm drainage service revenue is estimated to be \$41M.

Storm Drainage System

Recommended Rate Structure

Storm Drainage Estimated Rate Structure (Annual Billing)

\$115M revenue bond – Platte to Park Hill (2016)

\$121M revenue bond - \$91M Platte to Park Hill; \$30M Storm (2018)

Year	Total Avg. Residential Annual Bill	Total Rate Change % (Rate w/o CPI)	Residential Rate Change \$ (YoY)	Monthly rate*
2015	\$93.48	2.7%		\$7.89
2016	\$103.77	11% (8%)	\$10.28	\$8.64
2017	\$115.19	11% (8%)	\$11.42	\$9.59
2018	\$127.86	11% (8%)	\$12.67	\$10.65
2019	\$140.64	10% (7%)	\$12.78	\$11.72
2020	\$154.71	10% (7%)	\$14.07	\$12.89

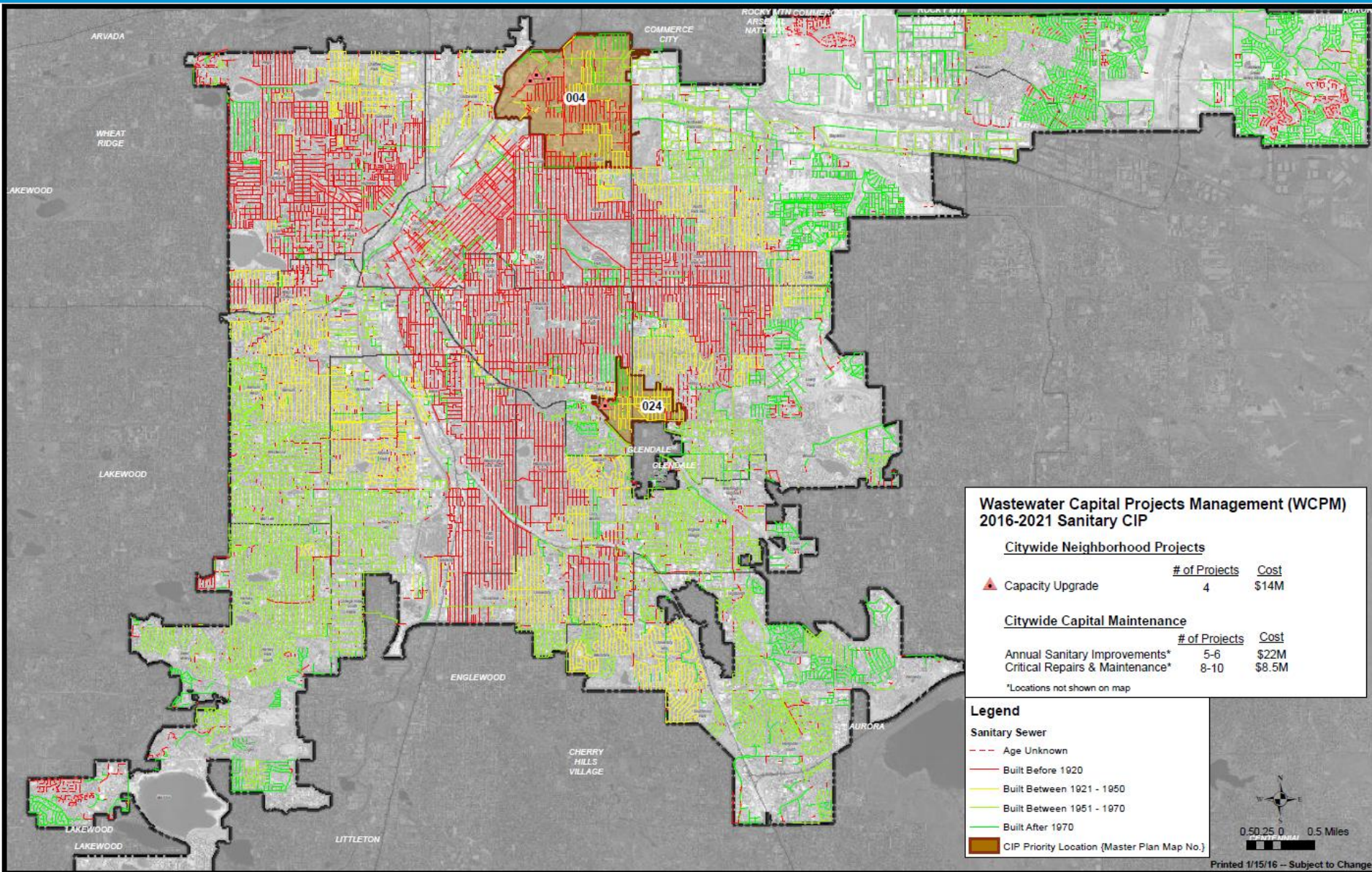
- The total impact to residential rate payer is approximately \$61 over five years or average of \$12.24 per year.
- Meets \$177M storm capital improvement project needs of system (\$30M/year).
- In order to maintain \$30M/year program, a projected rate increase of approximately 9% will be needed in 2021-2023.

* The new monthly bill rate if we switch to monthly billing with the help of Denver Water

SANITARY

- Average age of sanitary system is 60 years old.
- Sanitary Sewer spends \$2.5M on capital improvement projects each year.
 - Sanitary capital expenditures include:
 - Annual sanitary needs and improvements in neighborhoods:
 - Critical sanitary sewer lining program
 - Critical sanitary sewer replacement program (urgent repairs)
 - Annual sanitary sewer improvements
 - Water quality sewer lining program
 - Discretionary sanitary projects
- Metro Wastewater Reclamation District - 65% of sanitary operating expenditures.

Sanitary CIP Program (2016-2021)



Sanitary Sewer Rates - Historical

Sanitary Sewer Rate Structure (Monthly Billing)			
Year	Rate Change	Monthly Bill	Monthly Change
2011	45%*	\$16.40	\$6.65
2012	15%	\$16.25	-\$0.15
2013	10%	\$17.90	\$1.65
2014	CPI (2.8%)	\$18.40	\$0.50
2015	CPI (2.7%)	\$18.90	\$0.50

*Billing system surcharge of \$2.25 per month was also applied for six months from July 2011 until December 2011 (total of \$13.50).

- As of 2015, Denver is the lowest sanitary sewer rate in the metro area
- Based on metered water consumption.
- Prior to 2011, the last structural rate increase for sanitary sewer occurred in 1995.
- In 2016, sanitary sewer revenue is estimated to be \$86M.

Sanitary Sewer Estimated Rate Structure (Monthly Billing)

Year	Total Avg. Residential Annual Bill	Total Avg. Monthly Bill	Total Rate Change % (Rate w/o CPI)	Annual Rate Change \$	Monthly Rate Change \$
2015	\$226.80	\$18.90	2.7%	\$6.00	\$0.50
2016	\$238.08	\$19.84	5% (2%)	\$11.28	\$0.94
2017	\$249.96	\$20.83	5% (2%)	\$11.88	\$0.99
2018	\$260.04	\$21.67	4% (1%)	\$10.08	\$0.84
2019	\$270.36	\$22.53	4% (1%)	\$10.32	\$0.86
2020	\$281.28	\$23.44	4% (1%)	\$10.92	\$0.91

- Meets capital project needs of sanitary sewer system.
 - Annual program of \$8M (\$5.3M annual sanitary capital maintenance, \$3M in discretionary sanitary projects).
- Maintains sufficient cash reserves and debt service requirements.
 - Long-term financial sustainability of sanitary sewer utility service.
 - Annual Metro Reclamation District increases

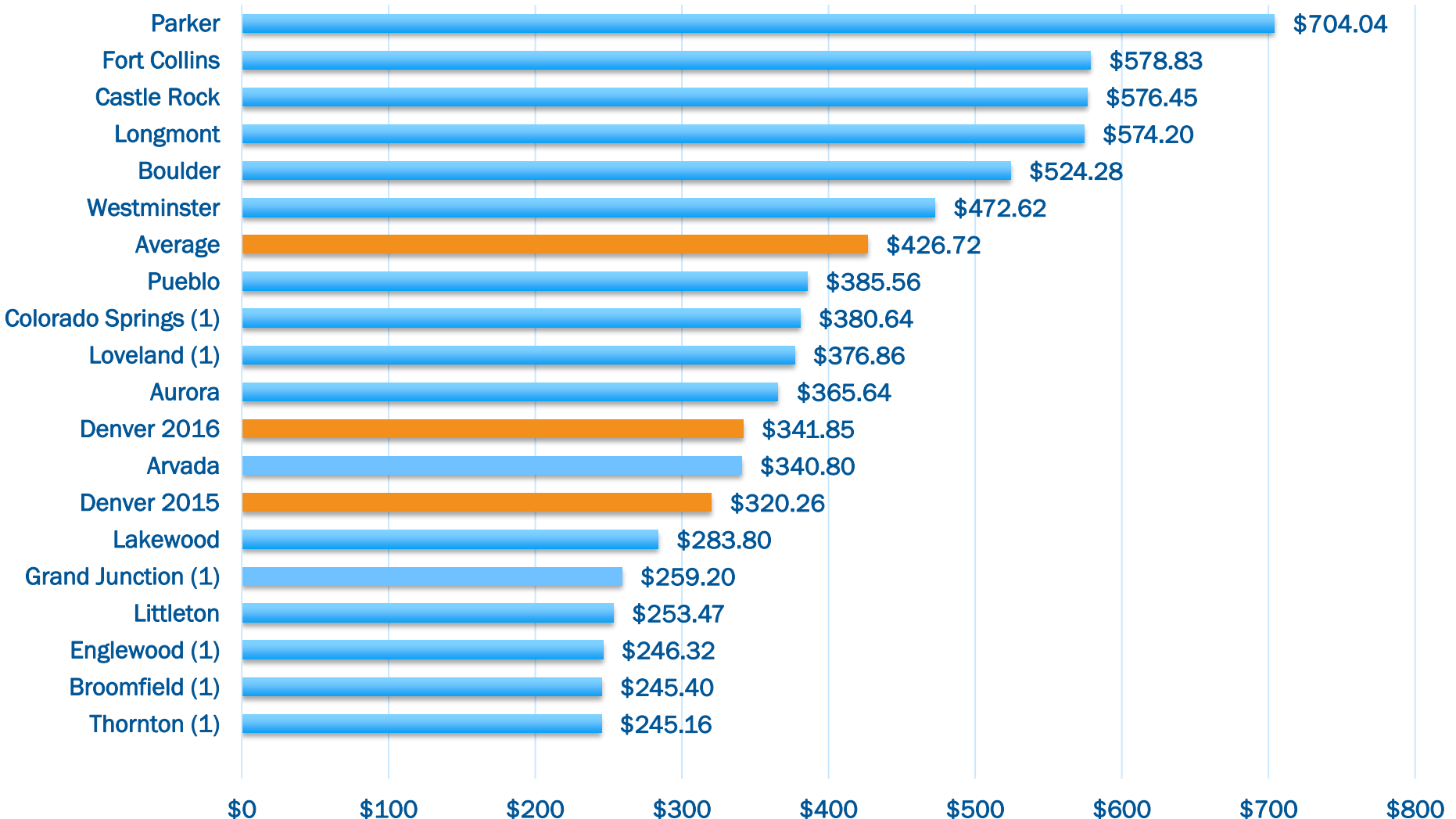
Storm & Sanitary Combined Recommended Rate Structures

Year	Avg. Annual Combined Single Family Bill (1)	Total Increase in Annual Bill
2016	\$341.85	\$21.56
2017	\$365.15	\$23.30
2018	\$387.90	\$22.75
2019	\$411	\$23.10
2020	\$436	\$25

- Total increase over five-year period is approximately \$116 per single family residential home or an average increase of \$23 per year.

Sewer & Storm Combined

Single Family Residential Annual Bill Comparison (2)



(1) Annual charge does not include Storm Utility charges

(2) 5/8-inch meter; 5,000 gallons usage; Lot size 7,500 sq. ft.; Impervious Area 2,750 sq. ft.

- **Storm billing options include:**
 - Moving to monthly or quarterly billing from annual
 - Installment payments
 - Annual bill with payment coupons (quarterly or monthly)
 - Outsource of storm billing through a partnership with Denver Water can simplify billing for customers.
 - Promotion of online payments (currently storm only) will make paying easier for customers.

- The Finance Department is researching potential affordability program options to support residents.
- Research will include structure, timing, criteria and public-private partnership opportunities.
- The goal is to have an affordability solution in place that complies with legal and TABOR requirements by January 1, 2017.

- Request adoption of preferred storm and sanitary five-year rate plan effective July 1st of 2016 and January 1st each year thereafter.
 - Public Works will return to City Council every five years to align rates with the updated six-year storm and sanitary capital plan.



June 8, 2015 – Denver Post